

Appl. No. : 09/993,874
Filed : November 14, 2001

AMENDMENTS TO THE CLAIMS

Please amend the Claims as follows. Insertions are shown underlined while deletions are struck through.

1 (currently amended): An isolated nucleic acid molecule comprising encoding a green light emitting luciferase which hybridizes under high stringency conditions to a nucleotide sequence selected from the group consisting of:

- a) SEQ ID NO:1; and
- b) the complement of SEQ ID NO:1,
wherein said high stringency conditions correspond to washing in prewarmed (68°C) solution containing 0.1xSSC/0.1% SDS for 15 min at 68°C,
wherein the encoded green light emitting luciferase emits green bioluminescence having a maxim λ of approximately 549 nm when expressed in E coli;
- c) nucleic acid molecule which is greater than about 90 percent identical to the nucleic acid sequence of SEQ ID NO:1 or the complement of SEQ ID NO:1;
- d) nucleic acid encoding a polypeptide having the amino acid sequence of SEQ ID NO:3; and
- e) nucleic acid encoding a polypeptide having an amino acid sequence which is greater than about 93 percent identical to the amino acid sequence of SEQ ID NO:3.

2 (canceled)

3 (currently amended): An isolated nucleic acid molecule encoding a red light emitting luciferase which hybridizes under high stringency conditions to a nucleotide sequence selected from the group consisting of:

- (a) SEQ ID NO.3, and
- (b) the complement of SEQ ID No.3,
wherein said high stringency conditions correspond to washing in prewarmed (68°C) solution containing 0.1xSSC/0.1%SDS for 15 min at 68°C,
wherein the encoded red light emitting luciferase emits red bioluminescence having a maxim λ of approximately 622 nm when expressed in E coli.

4 (canceled)

5 (canceled)

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6 (new): The isolated nucleic acid molecule as defined in Claim 1 wherein the nucleic acid molecule has at least 90% identity.

7 (new): A vector comprising the isolated nucleic acid molecule as defined in Claim 1 or 6.

8 (new): A recombinant host cell comprising the vector as defined in Claim 7.

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9 (new): The isolated nucleic acid molecule as defined in Claim 3 wherein the nucleic acid molecule has at least 90% identity.

10 (new): A vector comprising the isolated nucleic acid molecule as defined in Claim 6.

11 (new): A recombinant host cell comprising the vector as defined in Claim 8.
